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Determinants of attitudes towards professional mental health care, informal help and self-reliance in people with subclinical depression

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Abstract

Background: Although little is known about which people with subclinical depression should receive care to prevent the onset of depression, it is clear that remediating symptoms of depression is important. However, depending on the beliefs people hold about help, some people will seek professional help, while others seek informal help or solve problems on their own.

Aims: This study examined associations between attitudes about help and socio-demographic variables, mastery, severity of depressive symptoms, accessibility to care, and health care utilization at baseline and 4-year follow-up.

Methods: Data were derived from a large cohort study, the Netherlands Study of Depression and Anxiety (NESDA). A total of 235 respondents with subclinical depression completed questionnaires at baseline and follow-up. Attitude was assessed using a short version of the 'Trust in mental health care' questionnaire.

Results: Positive attitude towards professional care was associated with being male, younger age, higher mastery and easy accessibility to care. Positive attitude towards informal help was associated with higher mastery and unemployment. Older age, less accessibility to care and lower mastery were associated with positive attitude towards self-reliance. A change in care utilization was associated with positive attitudes towards professional care at follow-up.

Conclusions: People differ in the way they cope with symptoms which may influence their preferred care. Higher levels of mastery were positively associated with professional and informal care, but negatively associated with self-reliance. Both age and mastery showed relatively large effect sizes.

Keywords

Attitude towards care, mental health care, informal care, subclinical depression

Introduction

Subclinical depression is common (Cuijpers, de Graaf, & van Dorsselaer, 2004; Horwath, Johnson, Klerman, & Weissman, 1992), impairs the health-related quality of life of individuals substantially (Chachamovich, Fleck, Laidlaw, & Power, 2008) and is associated with a large societal burden (Broadhead, Blazer, George, & Tse, 1990). It can be defined as a score above a threshold for depressive symptoms that fail to meet the diagnostic criteria of major depression and/or dysthymia (Cuijpers & Smit, 2004) or as a depressed mood accompanied with less severe symptoms than those required for a Diagnostic and Statistical Manual of Mental disorders – fifth edition (DSM-V) diagnosis. Estimates of the prevalence rates of subclinical depression in samples range from 2% to 24% (Kessler, Zhao, Blazer, & Swartz, 1997; Rucci et al., 2003) depending on the definition, population and instrument used.

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Subclinical depression is an important risk factor for developing a major depression. Depending on the sample, 20%–34% of people with a subclinical depression develop a major depression (Cuijpers, Beekman, Smit, & Deeg, 2006; Hill, Pettit, Lewinsohn, Seeley, & Klein, 2014). Randomized controlled trials have shown that the onset of depression can be prevented by preventive interventions (Van Zoonen, Buntrock, et al., 2014). However, few people with subclinical depression seek help for their symptoms; the number of people that seeks professional help is estimated at 1%. Three categories of determinants of help-seeking behaviour are often distinguished: need factors such as severity and duration of symptoms, enabling factors such as organizational factors, and predisposing factors such as personality and attitudinal factors (Andersen & Newman, 2005; Anderson, 1973). Need factors are often less pronounced in people with subclinical depression, which is an important reason for people not to seek help, despite potential benefits. Thus, people are unlikely to seek help unless other indicators of need become more prominent such as exposure to a major stressful life event (Druss et al., 2007). Those who perceive a need for help without receiving any are often hindered by attitudinal barriers (Mackenzie, Erickson, Deane, & Wright, 2014; Van Zoonen, Kleiboer, et al., 2014).

Attitudinal barriers towards help-seeking include stigma-related concerns, fears or embarrassment about revealing personal details, beliefs that one should handle problems by oneself and beliefs about the probability that a service will help resolve a problem (Mackenzie et al., 2014). Research indicates that attitudinal barriers towards mental health services have become more negative over time which stresses the need to develop our understanding of help-seeking attitudes to improve access to professional help (Mackenzie et al., 2014).

This study has examined determinants of attitude towards mental health care (e.g. professional mental health care, informal help and self-reliance) in people with subclinical depression. First, we examined the relationship between various factors (e.g. age, gender, education level, marital status, employment status, severity of symptoms, mastery, accessibility to professional care, whether or not people had used professional care in the past) and attitudes towards mental health care. Based on the literature, we expected that older people, females, people who were married, employed, suffered from more severe symptoms and people who had already used professional care in the past would have a more positive attitude towards professional care and/or informal help. Second, we examined whether a change in attitudes between baseline and follow-up was related to a change in mastery, severity of depressive symptoms and use of care. We expected that a change in severity of symptoms (e.g. more severe), lower mastery over time and experience with mental health care would be associated with attitudes towards professional care and/or informal help.

Methods

Design, participants and procedure

Data from the Netherlands Study of Depression and Anxiety (NESDA) were used. Details can be found in another paper (Penninx et al., 2008). NESDA was designed to examine the long-term course of anxiety and depression in a longitudinal cohort study. In this study, we used data from wave 1 (baseline) and wave 3 (4-year follow-up). Respondents were recruited between September 2004 and February 2007 from the general population, general practices and mental health care centres in Amsterdam, Groningen and Leiden. Recruitment procedures were the same across regions and recruitment setting. Exclusion criteria included insufficient understanding of the Dutch language and a primary clinical diagnosis of a psychiatric condition that was not the subject of NESDA (e.g. psychotic disorders). Written consent was obtained from all respondents. The NESDA protocol has been approved by the Ethical Review Committee of the VU University Medical Center and local boards of every participating centre.

We included people with a score above 19 on the Kessler 10 (K10) screening instrument (Kessler et al., 2002) who did not meet the diagnostic criteria for depression (e.g. dysthymia and/or major depression) or anxiety in the past 6 months according to the Composite International Diagnostic Interview (CIDI) (Andrews & Peters, 1998; Kessler et al., 2002). Those with incomplete data at one or both assessments were excluded. A total of 1089 respondents scored above 19 on the K10; however, 561 of these respondents (52%) met the criteria for depression in 6 months prior to recruitment. Of the 528 respondents with subclinical depression, 178 respondents met criteria for current anxiety disorders and another 115 respondents had missing data, resulting in 235 respondents with subclinical depression.

Instruments

Depression screening instrument. The K10 was used as a screening instrument for depressive symptoms (15). This self-report questionnaire has shown to have good sensitivity and specificity for detecting people with major depressive disorder (Donker et al., 2010). The questionnaire consists of 10 questions which are answered on a 5-point rating scale ranging from ‘never’ to ‘always’. The Dutch version of the K10 has good psychometric properties ($\alpha=0.94$) (Donker et al., 2010).

Diagnostic instrument. The CIDI version 2.0 was used to establish depression status (e.g. major depression and/or dysthymia) in the past 6 months (Andrews & Peters, 1998). This diagnostic instrument was developed by the World Health Organization (WHO) for research purposes and lay

interviewers. The interview has shown good psychometric properties for depressive disorders (Andrews & Peters, 1998).

Attitude towards mental health care. To establish people's attitude towards mental health care, we used a short version of the 'Trust in mental health care' questionnaire (Friele, Verhaak, & Andela, 2000). The questionnaire consists of five questions: two measured 'confidence in professional help', two measured 'confidence in help from family/friends' and one single item stating 'psychological problems are best kept to one's self' (e.g. self-reliance). Items were scored on a 4-point rating scale with 'no' (1) to 'yes' (4), with 2.5 as the neutral 'no opinion' option. This resulted in three types of attitudes: attitude towards professional care, attitude towards informal help and attitude towards self-reliance (e.g. psychological problems can be best kept to one's self).

Demographic variables. Demographic variables (e.g. gender, age, educational level, marital status, employment status) were derived from the baseline measure. Educational level was divided into three categories: basic (e.g. elementary education only), intermediate (e.g. lower level vocational education, general middle level education, middle level vocational education, general secondary education) and high (e.g. higher level vocational education, college/university education). Marital status was divided into two categories: 'partner/married' (1) and 'not married/no partner' (0). Employment status was recoded into two categories: 'employed' (currently employed, self-employed, on sickness benefit, pregnancy/maternity leave and other) and 'unemployed' (occupationally disabled, early retirement, unemployed and other). The 'other' option was chosen 10 times and referred to variations of employed or unemployed. For example, 'officially employed, but due to a work related conflict at home and looking for a new job'. These answers were recoded into either employed or unemployed.

Depressive symptoms. Severity of depressive symptoms was established using the Inventory of Depressive Symptoms (IDS) (Rush et al., 1986). This self-report questionnaire contains 30 questions, with 4 answering options to each question (scored from 0 to 3). The psychometric properties of the IDS have shown to be acceptable to good (Gili et al., 2011; Rush, Gullion, Basco, Jarrett, & Trivedi, 1996). The internal consistency in this study was good (Cronbach's alpha $\alpha=0.77$).

Accessibility to care. To establish perceived accessibility to health care, we used questions from the first part of the Quality of care Through the patients' Eye Questionnaire (QUOTE) (Sixma, Kerssens, Campen, & Peters, 1998). The QUOTE measures the quality of care as it is delivered

from the patient's point of view and consists of 36 items. The first part entails 18 items divided over 6 subscales, including accessibility, general practitioner (GP) care, patient centeredness, explanation and advice, self-help, effective care. Items were scored on a 4-point rating scale from 1 ('no') to 4 ('yes'), with the score 2.5 as the neutral 'does not know' option. This study used the accessibility subscale that consists of three items. Higher scores indicate better accessibility to care. The reliability in this study was fair (Cronbach's alpha $\alpha=0.68$).

Care utilization. To establish whether people had received care for their mental health problems, a question from the QUOTE determines whether respondents had ever received care from their GP or other therapist for their mental health problems. They could answer with either 'yes' or 'no'. The same question was asked at follow-up.

To examine a change in help-receiving between baseline and follow-up, a variable with the possible combinations from the answers on baseline and follow-up was created. This leads to three possible categories: no help received at baseline, but help was received at follow-up (0), no help received at baseline or follow-up (1) or help was received at both baseline and follow-up (2).

Locus of control. To examine locus of control (e.g. mastery), we used the 5-item Pearlin and Schooler (1978) mastery scale. Mastery refers to the feeling to which a person perceives himself or herself to be in control of events and on-going situations. The questionnaire consisted of five items which are rated on 5-point scale ranging from 1 ('strongly disagree') to 5 ('strongly agree'). This results in a total score between 5 and 25, where higher rates indicate more feelings of mastery. In a non-institutionalized sample, it has shown reasonable reliability ($\alpha=0.67$) (Penninx et al., 1997). However, this study showed good reliability ($\alpha=0.81$).

Statistical analysis

To examine the association between the determinants and attitude towards care (e.g. professional informal help and self-reliance) at baseline, we first conducted univariate regression analyses. We created dummy variables for education (reference category was basic education). Next, we carried out multivariate multiple regression analyses to investigate which variable was most strongly associated with attitude at baseline.

Furthermore, we conducted univariate multiple regression analyses to examine whether a change in attitude over time was related to a change in other relevant variables (e.g. mastery, severity of depressive symptoms and use of care). In the regression analyses, attitude at 3-year follow-up was the dependent variable and baseline attitude and other variables were included as the independent variables.

Table 1. Descriptive characteristics of respondents.

Total respondents (n=235)	Baseline	Follow-up
Gender, n (%)		^a
Male	60 (25.5)	
Female	175 (74.5)	
Marital status, n (%)		^a
Not married/no partner	68 (28.9)	
Married/partner	167 (71.1)	
Education, n (%)		^a
Basic	12 (5.1)	
Intermediate	122 (51.9)	
High	101 (43.0)	
Employment status, n (%)		^a
Paid job	163 (69.4)	
No paid job	72 (30.6)	
Accessibility to care, M (SD)	9.4 (1.8)	^a
Age, M (SD)	43.3 (13.4)	^a
Use of professional care, n (%)		
No care used	64 (27.2)	144 (61.3)
Care used	171 (72.9)	91 (38.7)
Severity of symptoms, M (SD)	18.8 (8.5)	15.8 (9.7)
Mastery, M (SD)	17.7 (3.8)	18.2 (4.2)

^aNot applicable.

We calculated change scores between baseline and follow-up for mastery and severity of depressive symptoms. We created two dummy variables for use of care to indicate the direction of change between baseline and follow-up. The reference category was received care at follow-up, but not at baseline.

Results

Sample

The average age of respondents was 43 years, with a range of 18–65 years. Most respondents were females ($n=175$, 74%) and 26% were males ($n=60$) (Table 1). More than half of the respondents had an intermediate level of education ($n=122$, 52%), 43% of the respondents ($n=101$) had a high level of education and only a minority had a basic level of education ($n=12$, 5%). Most respondents indicated that they had used professional care for their mental problems ($n=171$, 73%) and only 64 respondents (27%) indicated never to have used professional care.

Associations between factors and attitude towards professional care at baseline

Results showed that respondents who were younger ($b=20$, $p<.01$), experienced more control over their lives ($b=0.21$, $p<.01$) and had a high level of education ($b=0.37$, $p<.01$) reported a more positive attitude towards mental health care at baseline (Table 2).

Results from the multiple linear regression showed that respondents who were male ($b=13$, $p<.05$), younger ($b=02$, $p<.01$), experienced more control over their lives ($b=0.06$, $p<.05$) and reported better accessibility to care ($b=0.19$, $p<.01$) reported a more positive attitude towards professional mental health care (Table 2). The model was a good fit to the data, $F(10, 224)=4.34$, $p<.001$; however, only 16% of the variance was explained ($R^2=.16$).

Associations between factors and attitude towards informal help at baseline

Results of the univariate linear regression analyses showed that respondents who experienced more control over their lives ($b=0.17$, $p<.01$) reported a more positive attitude towards informal help at baseline (Table 2).

Multiple linear regression analysis showed that a more positive attitude towards informal help is associated with being unemployed ($b=39$, $p<.05$) and experiencing more control over one's life ($b=0.04$, $p<.05$) (Table 2). However, the model was not a good fit to the data ($F(10, 224)=1.87$, $p=.05$) and explained only 8% of the variance ($R^2=.08$).

Associations between factors and attitude towards self-reliance at baseline

The results of the univariate linear regression analyses showed that respondents who were older ($b=0.01$, $p<.001$)

Table 2. Univariate and multivariate associations with attitude at baseline.

	Professional care			Informal help			Self-reliance		
	Univariate			Univariate			Univariate		
	B (SE)	b	B (SE)	B (SE)	b	B (SE)	B (SE)	b	B (SE)
Constant	a	—	4.99 (0.61)	— ^{***}	—	4.58 (0.64)	— ^{***}	—	2.33 (0.31)
Gender	—0.24 (0.15)	—	—0.31 (0.14)	—0.13*	—0.20 (0.15)	—0.09	—0.08	—	0.15 (0.10)
Marital status	0.04 (0.15)	.02	0.06 (0.14)	.03	—0.05 (0.15)	—0.02	—0.01	.06	0.04 (0.10)
Employment status	0.24 (0.14)	.11	—0.00 (0.14)	—0.00	—0.25 (0.14)	—0.11	—0.18*	.05	0.05 (0.10)
Age	—0.02 (0.01)	—0.20**	—0.02 (0.01)	—0.23**	—0.00 (0.01)	—0.05	—0.07	—0.07	0.01 (0.00)
Education								.25***	0.01 (0.00)
Intermediate	0.33 (0.30)	.16	0.07 (0.30)	.03	0.03 (0.31)	.01	—0.00 (0.31)	—0.07	0.05 (0.20)
High	0.75 (0.30)	.37***	0.49 (0.30)	.24	0.26 (0.31)	.13	0.28 (0.32)	—0.23	—0.15 (0.20)
Use of professional care	0.03 (0.15)	.01	0.08 (0.14)	.03	—0.18 (0.15)	—0.08	—0.12 (0.15)	—0.09	—0.17 (0.10)
Mastery	0.06 (0.02)	.21***	0.04 (0.02)	.16*	0.04 (0.02)	.16*	0.04 (0.02)	—0.20**	—0.03 (0.01)
Severity of symptoms	—0.01 (0.01)	—0.12	—0.00 (0.01)	—0.01	—0.01 (0.01)	—0.09	—0.00 (0.01)	.11	0.00 (0.01)
Accessibility	0.06 (0.04)	.10	0.10 (0.04)	.19**	0.01 (0.04)	.01	0.03 (0.04)	—0.08	—0.07 (0.02)

^aPer regression analyses, B ranged from 5.17 to 6.62 (professional care), 4.21 to 5.19 (informal help), 1.19 to 2.25 (self-reliance).

* $p < .05$, ** $p < .01$, *** $p < .001$.

and who experienced less control over their lives ($b=.04$, $p<.01$) reported a more positive attitude towards self-reliance (Table 2).

Multivariate analysis showed that respondents who were older ($b=0.01$, $p<.001$), experienced less control over their lives ($b=.17$, $p<.05$) and who indicated less accessibility to professional care ($b=.17$, $p<.01$) reported a more positive attitude towards self-reliance (Table 2). The model was a good fit to the data, $F(10, 224)=4.11$, $p<.001$. However, only 16% of the variance was explained by the model ($R^2=.16$).

Longitudinal descriptive characteristics

When examining the possible factors associated with a change in attitude (e.g. mastery, severity of symptoms and care utilization in the past), most people indicated that they had used care at both baseline and follow-up (73%), 23% indicated no use of care at baseline or follow-up, whereas only 4% indicated that they had not used care at baseline, but they had used care at follow-up. Most people reported an increase in mastery between baseline and follow-up (52%), 37% reported lower mastery and 11% did not report a change in mastery. Furthermore, most people reported a decrease in severity of depressive symptoms (64%), 32% reported an elevation in depressive symptoms and 4% reported no change in depressive symptoms between baseline and follow-up.

Longitudinal analysis of variables on attitude towards professional care

Respondents who had not used professional care (GP or other specialist for mental problems) at baseline or follow-up reported a more negative attitude towards professional care at follow-up compared to respondents who had not used professional care at baseline, but who indicated a use of professional care at 4-year follow-up ($p<.05$) (Table 3).

Multivariate stepwise analysis showed similar results (Table 3). Both models showed that a positive attitude at baseline is associated with a more positive attitude at follow-up ($p<.001$, in both models). Furthermore, the second model, including all variables, showed that respondents who indicated no use of professional care at baseline and follow-up reported a less positive attitude towards professional care at baseline. The first model was a good fit to the data, $F(1, 233)=96.13$, $p<.001$ and explained 29% of the variance ($R^2=.29$). The second model was a good fit to the data also, $F(5, 229)=16.33$, $p<.001$ and explained 32% of the variance ($R^2=.32$). However, the R^2 change was not significant ($p=.07$), indicating the model with all predictors does not explain more of the variance than our first model including attitude at baseline only.

Longitudinal analysis of predictors on attitude towards informal help

No significant associations with attitude towards informal help at follow-up were found, except for attitude at baseline ($p<.001$) (Table 3). Multivariate analysis showed similar results, indicating that attitude towards informal help at baseline was associated with attitude towards informal help at follow-up (Table 3). Both models showed a good fit to the data; model 1 $F(1, 233)=42.71$, $p<.001$, and model 2 $F(5, 229)=10.65$, $p<.001$. The first model explained 16% of the variance ($R^2=.16$), while the second model explained 19% of the variance ($R^2=.19$). Again, the R^2 change was not significant (R^2 change=.03, $p=.05$).

Longitudinal analysis of predictors on attitude towards self-reliance

None of the variables (e.g. mastery, severity of symptoms and use of professional care) were significantly associated with attitude towards self-reliance at follow-up, except for attitude at baseline (Table 3). Multivariate analysis showed an association between attitude towards self-reliance at baseline and attitude towards self-reliance at follow-up only ($p<.001$). However, both models seemed to be a good fit to the data; model 1, $F(1, 233)=45.55$, $p<.001$, and model 2, $F(5, 229)=11.31$, $p<.001$. Model 1 explained 16% of the variance ($R^2=.16$) and model 2 explained 20% ($R^2=.20$). The change in R^2 of 3% (R^2 change=.03) was significant ($p<.05$), indicating the second model was a better fit to the data than model 1.

Discussion

Results

Not everyone with a subclinical depression will develop a depressive disorder. Therefore, it is important to gain better insight into their preferences of coping with their symptoms (Pietrzak et al., 2013). Attitude towards care (i.e. professional care, informal help or self-reliance) is an important factor that will determine how people will cope with their symptoms. Since no research to date has focused on attitudes towards care in people with subclinical depression, this study examined the influences on attitude towards professional mental health care, informal help and self-reliance in a sample with subclinical depression.

Our results show that being male, being younger in age, feeling more control over their lives and having easy access to professional care were related to a more positive attitude towards professional mental health care at baseline. Being male and having a more positive attitude towards professional care contradicts previous findings that males are less likely to seek professional care in general (Jagdeo, Cox, Stein, & Sareen, 2009; Jorm & Wright,

Table 3. Univariate and multivariate longitudinal analyses of attitude.

	Univariate		Multivariate	
	b		Model 1	
	B (SE)	b	B (SE)	b
Professional mental health care				
Attitude at baseline	^a	^a	0.56 (0.06) ^{***}	0.54
Change in mastery	0.01 (0.02)	0.04		
Change in severity of depressive symptoms	0.00 (0.01)	0.03		
Change in use of professional care	0	0		
No experience at baseline, but experience at follow-up	-0.68 (0.31)*	-0.27		
No experience at baseline and follow-up	-0.39 (0.30)	-0.17		
Informal help				
Attitude at baseline	^a	^a	0.41 (0.06) ^{***}	0.39
Change in mastery	0.01 (0.02)	0.05		
Change in severity of depressive symptoms	0.01 (0.01)	0.06		
Change in use of professional care	0	0		
No experience at baseline, but experience at follow-up	-0.05 (0.35)	-0.02		
No experience at baseline and follow-up	-0.44 (0.33)	-0.19		
Self-reliance				
Attitude at baseline	^a	^a	0.41 (0.06) ^{***}	0.40
Change in mastery	0.02 (0.01)	0.40		
Change in severity of depressive symptoms	-0.01 (0.00)	-0.08		
Change in use of professional care	0	0		
No experience at baseline, but experience at follow-up	0.36 (0.22)	0.23		
No experience at baseline and follow-up	0.12 (0.21)	0.08		
Experience at baseline and follow-up				

^aWe controlled for attitude at baseline. Per univariate regression analyses, b ranged from: 0.54 to 0.56 (professional care), 0.38 to 0.40 (informal help) and 0.39 to 0.40 (self-reliance).

* $p < .05$; ** $p < .01$; *** $p < .001$.

2007). However, this effect was relatively small and the univariate analysis did not show a significant effect, indicating that this result might be caused by an interaction with another variable. Furthermore, our results seem to support the finding that younger adults hold more positive beliefs about professional care although some inconsistencies in the literature regarding age as a predictor of coping exist (Andrews, Issakidis, & Carter, 2001; Bland, Newman, & Orn, 1997; Ten Have et al., 2010; Verhaak et al., 2009). Unemployment and feelings of more control were associated with more positive attitudes towards informal help at baseline. Although research on informal help-seeking is scarce, previous research did not find any influence of employment status (Brown et al., 2014). However, Brown and colleagues included more young adults and students among the economically inactive, whereas this study included mostly people who were economically active or employed.

A positive attitude towards self-reliance was associated with older age, lower feelings of control and less accessibility to professional care. No studies have examined attitude towards self-reliance; however, the results seem to support findings that older people prefer to solve problems on their own and report a less positive attitude towards professional care (Jagdeo et al., 2009; Van Zoonen, Kleiboer, et al., 2014). Moreover, inaccessibility to professional care appears to have a negative influence on attitude towards professional care (Fung & Wong, 2007; Mojtabai, 2007); however, it might also make people feel that they should solve these problems on their own resulting in a more positive attitude towards being self-reliant.

Respondents, who indicated to have used professional care for their mental health problems at follow-up but not at baseline, reported a more positive attitude towards professional care compared to respondents who had not used professional care at either baseline or follow-up. This experience with care might explain results from other research indicating that people who report using professional care are more readily seek care when they experience problems (Fung & Wong, 2007; Mojtabai, 2007; Verhaak et al., 2009). However, these results should be interpreted with caution since this model did not explain more of the variance than the model with solely attitude towards professional care at baseline. Moreover, a change in mastery, severity of depressive symptoms and care utilization when controlling for attitude at baseline were not associated with neither attitude towards informal help nor attitude towards self-reliance at follow-up. Since attitude is a very stable construct, it may be difficult to find an effect.

Limitations

This study has some important strengths, including a large sample size and longitudinal design. As far as we know,

this is the first study that examines the association in change of variables across time on a change in attitude towards different types of care across time. Therefore, this study provides a good first step in a better understanding of attitudes towards care in people with subclinical depression. However, there were certain limitations to this study and the results should be interpreted in light of these limitations. The definition of subclinical depression as used in this study does not distinguish between depression in remission and people who experience depressive symptoms for the first time. However, no clear consensus on the definition of subclinical depression exists. This can have influenced the results since people who have experienced a depression might have had more experience with professional care. Furthermore, the scale on which the different types of attitude were based was derived from a larger questionnaire, which might have caused some information to get lost. More items may be needed to establish different types of attitudes; however, this is often a challenge in epidemiological studies. More importantly, this study examines a specific part of attitudes that may be of influence on help-seeking. Finally, the study uses longitudinal data based on two measurement points in time since attitude is a fairly stable construct; however, it is difficult to identify causal relationships. For example, it is impossible to identify whether someone sought care because they already had a positive attitude or did the experience with care positively influence the attitude. Nonetheless, this study enhances our understanding about an important facet of help-seeking that has not been examined before in this high-risk group of people with subclinical depression.

Implications and future research

People with subclinical depression have an increased risk of developing major depression. Preventive interventions have shown to be effective; however, people who are willing to seek care are often hindered by attitudinal barriers. It is therefore important to increase our understanding of how people with subclinical depression will cope with their symptoms and what, if any, care will be sought.

Future research should replicate the results from this study and expand knowledge by differentiating between people who suffer from first-time subclinical depression and people who report subclinical depression after having suffered from a depressive disorder as this is considered an indicator of need (Druss et al., 2007). This history of depression might influence whether or not people have experience with different types of care and this, in turn, might influence people's attitudes towards that care.

Furthermore, not everyone who suffers from subclinical depression will need care (e.g. not everyone will develop a depressive disorder) (Cuijpers et al., 2006; Hill et al., 2014). Therefore, future research should focus on

examining whether or not being self-reliant will suffice in preventing the onset of depression in people with subclinical depression who indicate a more positive attitude towards being self-reliant and who have not sought professional help.

Conclusion

Prior research has shown that attitude towards mental health care plays an important role in whether or not people seek help. This study shows that mastery was the most stable factor associated with all three attitudes. Higher levels of mastery were positively associated with professional and informal care, but negatively associated with self-reliance. Both age and mastery showed relatively large effect sizes. Furthermore, it is important to examine whether being self-reliant is sufficient in preventing the depressive symptoms from converting into a depressive disorder.

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References

- Andersen, R. M., & Newman, J. F. (2005). Societal and individual determinants of medical care utilization in the United States. *Milbank Quarterly*, 83(4). doi:10.1111/j.1468-0009.2005.00428.x
- Anderson, J. G. (1973). Demographic factors affecting health services utilization: A causal model. *Medical Care*, 11, 104–120. doi:10.2307/3762477
- Andrews, G., Issakidis, C., & Carter, G. (2001). Shortfall in mental health service utilisation. *British Journal of Psychiatry*, 179, 417–425.
- Andrews, G., & Peters, L. (1998). The psychometric properties of the Composite International Diagnostic Interview. *Social Psychiatry & Psychiatric Epidemiology*, 33(2), 80–88.
- Bland, R. C., Newman, S. C., & Orn, H. (1997). Help-seeking for psychiatric disorders. *Canadian Journal of Psychiatry*, 42, 935–942.
- Broadhead, W., Blazer, D. G., George, L. K., & Tse, C. (1990). Depression, disability days, and days lost from work in a prospective epidemiologic survey. *Journal of the American Medical Association*, 264, 2524–2528. doi:10.1001/jama.1990.03450190056028
- Brown, J. S., Evans-Lacko, S., Aschan, L., Henderson, M. J., Hatch, S. L., & Hotopf, M. (2014). Seeking informal and formal help for mental health problems in the community: A secondary analysis from a psychiatric morbidity survey in South London. *BMC Psychiatry*, 14(1), Article 275.
- Chachamovich, E., Fleck, M., Laidlaw, K., & Power, M. (2008). Impact of major depression and subsyndromal symptoms on quality of life and attitudes toward aging in an international sample of older adults. *The Gerontologist*, 48, 593–602.
- Cuijpers, P., Beekman, A. T. F., Smit, F., & Deeg, D. (2006). Predicting the onset of major depressive disorder and dysthymia in older adults with subthreshold depression: A community based study. *International Journal of Geriatric Psychiatry*, 21, 811–818.
- Cuijpers, P., de Graaf, R., & van Dorsselaer, S. (2004). Minor depression: Risk profiles, functional disability, health care use and risk of developing major depression. *Journal of Affective Disorders*, 79, 71–79. doi:10.1016/S0165-0327(02)00348-8
- Cuijpers, P., & Smit, F. (2004). Subthreshold depression as a risk indicator for major depressive disorder: A systematic review of prospective studies. *Acta Psychiatrica Scandinavica*, 109, 325–331.
- Donker, T., Comijs, H., Cuijpers, P., Terluin, B., Nolen, W., Zitman, F., & Penninx, B. (2010). The validity of the Dutch K10 and extended K10 screening scales for depressive and anxiety disorders. *Psychiatry Research*, 176, 45–50. doi:10.1016/j.psychres.2009.01.012
- Druss, B. G., Wang, P. S., Sampson, N. A., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2007). Understanding mental health treatment in persons without mental diagnoses: Results from the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 64, 1196–1203.
- Friele, R., Verhaak, P., & Andela, M. (2000). Vertrouwen in de GGZ: meer duidelijkheid gevraagd. [Trusting the mental health care: more insight needed]. *Maandblad Geestelijke Volksgezondheid*, 55(2), P122–P133.
- Fung, K., & Wong, Y.-L. R. (2007). Factors influencing attitudes towards seeking professional help among East and Southeast Asian immigrant and refugee women. *International Journal of Social Psychiatry*, 53, 216–231.
- Gili, M., Luciano, J. V., Bauzá, N., Aguado, J., Serrano, M. J., Armengol, S., & Roca, M. (2011). Psychometric properties of the IDS-SR30 for the assessment of depressive symptoms in Spanish population. *BMC Medical Research Methodology*, 11(1), Article 131.
- Hill, R. M., Pettit, J. W., Lewinsohn, P. M., Seeley, J. R., & Klein, D. N. (2014). Escalation to major depressive

- disorder among adolescents with subthreshold depressive symptoms: Evidence of distinct subgroups at risk. *Journal of Affective Disorders*, 158, 133–138. doi:10.1016/j.jad.2014.02.011
- Horwath, E., Johnson, J., Klerman, G. L., & Weissman, M. M. (1992). Depressive symptoms as relative and attributable risk factors for first-onset major depression. *Archives of General Psychiatry*, 49, 817–823. doi:10.1001/archpsyc.1992.01820100061011
- Jagdeo, A., Cox, B. J., Stein, M. B., & Sareen, J. (2009). Negative attitudes toward help seeking for mental illness in 2 population-based surveys from the United States and Canada. *Canadian Journal of Psychiatry*, 54, 757–766.
- Jorm, A. F., & Wright, A. (2007). Beliefs of young people and their parents about the effectiveness of interventions for mental disorders. *Australasian Psychiatry*, 41, 656–666.
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normands, S. L. T., ... Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32, 959–976. doi:10.1017/S0033291702006074
- Kessler, R. C., Zhao, S., Blazer, D. G., & Swartz, M. (1997). Prevalence, correlates, and course of minor depression and major depression in the national comorbidity survey. *Journal of Affective Disorders*, 45, 19–30. doi:10.1016/S0165-0327(97)00056-6
- Mackenzie, C. S., Erickson, J., Deane, F. P., & Wright, M. (2014). Changes in attitudes toward seeking mental health services: A 40-year cross-temporal meta-analysis. *Clinical Psychology Review*, 34, 99–106. doi:10.1016/j.cpr.2013.12.001
- Mojtabai, R. (2007). Americans' attitudes toward mental health treatment seeking: 1990–2003. *Psychiatric Services*, 58, 642–651.
- Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19, 2–21. doi:10.2307/2136319
- Penninx, B. W., Beekman, A. T., Smit, J. H., Zitman, F. G., Nolen, W. A., Spinhoven, P., ... Assendelft, W. J. (2008). The Netherlands Study of Depression and Anxiety (NESDA): Rationale, objectives and methods. *International Journal of Methods in Psychiatric Research*, 17, 121–140.
- Penninx, B. W., Van Tilburg, T., Kriegsman, D. M., Deeg, D. J., Boeke, A. J. P., & van Eijk, J. T. M. (1997). Effects of social support and personal coping resources on mortality in older age: The Longitudinal Aging Study Amsterdam. *American Journal of Epidemiology*, 146, 510–519.
- Pietrzak, R., Kinley, J., Afifi, T., Enns, M., Fawcett, J., & Sareen, J. (2013). Subsyndromal depression in the United States: Prevalence, course, and risk for incident psychiatric outcomes. *Psychological Medicine*, 43, 1401–1414.
- Rucci, P., Gherardi, S., Tansella, M., Piccinelli, M., Berardi, D., Bisoffi, G., ... Pini, S. (2003). Subthreshold psychiatric disorders in primary care: Prevalence and associated characteristics. *Journal of Affective Disorders*, 76, 171–181. doi:10.1016/S0165-0327(02)00087-3
- Rush, A. J., Giles, D. E., Schlessner, M. A., Fulton, C. L., Weissenburger, J., & Burns, C. (1986). The inventory for depressive symptomatology (IDS): Preliminary findings. *Psychiatry Research*, 18, 65–87.
- Rush, A. J., Gullion, C. M., Basco, M. R., Jarrett, R. B., & Trivedi, M. H. (1996). The Inventory of Depressive Symptomatology (IDS): Psychometric properties. *Psychological Medicine*, 26, 477–486.
- Sixma, H. J., Kerssens, J. J., Campen, C. V., & Peters, L. (1998). Quality of care from the patients' perspective: From theoretical concept to a new measuring instrument. *Health Expectations*, 1(2), 82–95.
- Ten Have, M., De Graaf, R., Ormel, J., Vilagut, G., Kovess, V., & Alonso, J. (2010). Are attitudes towards mental health help-seeking associated with service use? Results from the European Study of Epidemiology of Mental Disorders. *Social Psychiatry & Psychiatric Epidemiology*, 45, 153–163.
- Van Zoonen, K., Buntrock, C., Ebert, D. D., Smit, F., Reynolds, C. F. r., Beekman, A. T., & Cuijpers, P. (2014). Preventing the onset of major depressive disorder: A meta-analytic review of psychological interventions. *International Journal of Epidemiology*, 43, 318–329. doi:10.1093/ije/dyt175
- Van Zoonen, K., Kleiboer, A. M., Beekman, A. T. F., Smit, J. H., Boerema, A. M., & Cuijpers, P. (2014). Reasons and determinants of help-seeking in people with a subclinical depression. *Journal of Affective Disorders*, 173, 105–112. doi:10.1016/j.jad.2014.10.062
- Verhaak, P. F., Prins, M. A., Spreeuwenberg, P., Draisma, S., van Balkom, T. J., Bensing, J. M., ... Penninx, B. W. (2009). Receiving treatment for common mental disorders. *General Hospital Psychiatry*, 31, 46–55.